

REMARKS

At the time of the Office Action dated July 1, 2008, claims 1-5 were pending in this application. Of those claims, claim 5 has been withdrawn from consideration pursuant to the provisions of 37 C.F.R. §1.142(b).

In this Amendment, claims 1-3 and 5 have been amended, and claim 4 canceled. Care has been exercised to avoid the introduction of new matter. Support for the amendments to the claims can be found in, for example, Fig. 1, and the paragraph bridging pages 4 and 5, the second full paragraph on page 6, and the second full paragraph on page 9, of the specification.

Claims 1-3 are now active in this application of which claim 1 is independent.

Claim Rejections—35 U.S.C. § 112

Claims 1-4 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner specifically indicated that the phrases “unlikely to become brittle” and “excellent hardness and creep resistance” are not clear.

In this Amendment, the above phrases have been deleted from claim 1. Accordingly, the rejection of claims 1-4 under 35 U.S.C. § 112, second paragraph, has been rendered moot. Withdrawal of the rejection of the claims is, therefore, respectfully solicited claim 1.

Claim Rejections—35 U.S.C. § 102 /103

1. Claims 1-3 have been rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Roberts (U.S. Patent No. 4,021,271); and claims 1-3 have been rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Doyle (U.S. Patent No. 3,310,389).

These rejections have been rendered moot because independent claim 1 has been amended to include the limitations recited in claim 4. Applicants, therefore, respectfully solicit withdrawal of the rejection of claims 1-3.

2. Claim 4 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Doyle in view of Glass et al. (U.S. Patent No. 5,306,414, hereinafter "Glass").

Now, claim 1 includes the limitations of claim 4. Applicants thus discuss herein that Doyle and Glass, either individually or in combination, do not disclose or suggest a contact probe including all the limitations recited in independent claim 1 which reads:

1. A contact probe comprising
a plunger portion in contact with a circuit to be tested,
a spring portion supporting the plunger portion and
a lead line connection portion electrically connecting the spring portion to a lead line, wherein:

said contact probe is formed of a nickel-manganese alloy,
annealing has been applied at a temperature of 150°C-250°C, not more
than a temperature at which crystals of said nickel-manganese alloy start
to become larger, and

a crystal size of said contact probe after annealing is not more than 130 nm.

According to claim 1, the contact probe is unlikely to become brittle and has excellent creep resistance while maintaining hardness (see page 3, lines 3-5 of the specification). Depending on the conditions of annealing, the contact probe will become more brittle and have reduced hardness. Thus, the probe is more likely to be broken as described in the specification. The condition of annealing may be significant for each alloy.

Doyle merely discloses an aluminum-manganese alloy. The reference does not teach a contact probe including a plunger portion, a spring portion, and a lead line connection portion. In addition, Doyle is silent on a contact probe formed of a nickel-manganese alloy and having a crystal size of not more than 130 nm.

Glass also merely discloses an aluminum alloy for electrical resistance sensors, as illustrated in Figure 1. Glass does not teach that the alloy can be used as a contact probe for semiconductors, and does not have a plunger portion, a spring portion, and a lead line connection portion.

Furthermore, Doyle and Glass fail to disclose or suggest that annealing has been applied to the contact probe formed of the nickel-manganese alloy at a temperature of 150°C-250°C, not more than a temperature at which crystals of the nickel-manganese alloy start to become larger. Nor do Doyle and Glass teach that creep property can be improved by annealing the nickel-manganese alloy in a specific temperature range.

Based on the foregoing, Doyle and Glass, either individually or in combination, do not disclose or suggest a contact probe including all the limitations recited in independent claim 1. Dependent claims 2 and 3 are also patentably distinguishable over Doyle and Glass at least because these claims include all the limitations recited in independent claim 1. Applicants, therefore, respectfully solicit withdrawal of the rejection of the claims and favorable consideration thereof.

Conclusion

In view of the above remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the

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application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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